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## COMPLIMENTS EXTRAORDINARY.

WHEN Dr Parr, charmed by Erskine's tongue, declared he intended to write his epitaph, the great lawyer paid the vain scholar in his own coin by pronouncing the promise a temptation to commit suicide. Nothing came of this odd expression of mutual admiration, as happened in the case of a similar interchange of civilities between Nelson and Benjamin West the painter. Just before the famous Admiral left England for the last time, West sat next him at a dinner in his honour. Conversing with Sir William Hamilton, who sat on his other side, Nelson lamented his want of taste for art, but said there was one picture the power of which he felt, never passing a print-shop where the Death of Wolfe was exhibited without being stopped by it; and turning to the gratified hearer on his other hand, he asked why he had painted no more pictures like it. 'Because, my lord,' replied the artist, 'there are no more subjects. But I fear your intrepidity will yet furnish me with such another scene; and if it should, I shall certainly avail myself of it.' 'Will you, Mr West?' cried Nelson. 'Then I hope I shall die in the next battle!' Trafalgar realised the hero's hope, and West redeemed his promise by painting the Death of Nelson.

It is something to succeed in impressing the unimpressible, but there is more satisfaction in extorting praise from competitors in the same field. A diplomatist could not desire more conclusive testimony to his ability than that won by Mirabeau's 'audacieux et rusé' minister, the first Earl of Malmesbury, of whom Talleyrand said if you only allowed him to have the last word he was always in the right. Father Onorato must have been exceedingly vain or exceedingly indifferent if he did not inwardly exult at hearing that Bourdaloue, upon being asked what he thought of the Father's preaching, replied: 'He tickles the ears indeed, but he pricks the heart; people return at his sermons the purses they have stolen at mine.' And Sir Walter Scott was no

doubt delighted when Manzoni acknowledged his congratulations with: 'My book is yours, for I owe it to the deep study I made of your works;' but he gave the Italian a Roland for his Oliver by replying: 'Then *Il Promessi Sposi* is my best novel.' Scott however, was not a whit more sincere than the gallant country mayor who, handing a handsome matron down to dinner, was rather taken aback by her observing: 'I don't know, Mr Mayor, whether you are afraid of the measles, but my little ones have them, and I myself have had a slight attack.' But, equal to the occasion, he replied: 'Madam, I should be only too delighted to take anything from so charming a source.'

'Everything belongs either to the king of France or to Madame Champmesle,' wrote La Fontaine to that queen of the French stage; but flattered as she may have felt at receiving such a tribute to her charms, we may be sure the actress thought much more of the involuntary eulogy wrung from Mademoiselle d'Euillets, who as the curtain fell on the new Hermione, exclaimed: 'There's an end of D'Euillets!' Nor could Talma but be satisfied he was right in attiring Proculus in a genuine toga, as the first step towards reforming stage costume, when Conlet, aghast at the innovation, cried out: 'Look at Talma! Was anything so ridiculous ever seen? He looks like an ancient statue!'

Talking over Garrick's retirement with Mrs Montague, Dr Beattie told her he was so excited the first time he witnessed that actor's performance of Macbeth, that he nearly fell over into the pit from the front of the two-shilling gallery, and wished he could have another opportunity of risking his neck and nerves in the same cause, since to fall by the hands of Shakspeare and Garrick would ennoble his memory to all generations; supplementing this compliment to his dramatic idols with expressing his belief that if all actors resembled Garrick, it would be impossible for a person of any sensibility to outlive the representation of Hamlet, King Lear, or Macbeth. But all compliments paid to players pale before

Ben Jonson's eulogistic lines upon Salathiel Pary, the boy-actor :

Years he numbered scarce thirteen  
When fates turned cruel ;  
Yet three filled zodiacs had he been  
The stage's jewel ;  
And did act—what now we moan—  
Old men so duly ;  
As sooth, the Parce thought him one,  
He played so truly.

The Ettrick Shepherd took a neat way of telling a lady she was no ordinary specimen of the sex. 'Ye're a nice lassie, Miss Drysdale,' said he. 'Nearly all girls are like a bundle of pens cut by the same machine ; but ye're not of the bundle.'

Not contented with giving verbal demonstration of his admiration was the Shah of Persia, who, when an English lady of high degree pronounced his diamonds to be 'so lovely,' slapped her ladyship's fair shoulders, saying : 'Not so lovely as what we have here!' The Shah however, with advantage take a lesson in the art of complimenting from the Sultan of Zanzibar, who likened Queen Victoria to the mountain of load-stone which drew the nails out of the sides of passing ships, for even so did the hearts of Englishmen seem to be drawn on by a magnet to Her Majesty. Or he might learn something from that Siamese ambassador who wrote : 'One cannot fail to be struck with the aspect of the august Queen of England, or fail to observe that she must be of pure descent from a race of goodly and warlike kings and rulers of the earth, in that her eyes, complexion, and above all her bearing, are those of a beautiful and majestic white elephant.'

At his first meeting with Mrs Somerville, La Place told her the world held only three women who understood him—namely Caroline Herschel, herself, and a Mrs Greig, of whom he had never been able to learn anything. 'I was Mrs Greig,' was the quiet response. 'So then there are only two of you!' exclaimed the philosopher. It was a naive compliment ; but not one to stir the recipient's pulses ; for after all, the most pronounced blue-stocking would probably prefer exciting male admiration by physical rather than mental charms. Does not Mrs Thrale say emphatically : 'That a woman will pardon an affront to her understanding much sooner than one to her person, is well known, and none of us will contradict the assertion.' Had Lalande known as much, he would not, on finding himself placed between Madame Récamier and Madame de Staël, discharged the double-barrelled compliment : 'How happy am I to be thus placed between Beauty and Wit ;' drawing upon himself De Staël's retort : 'Yes, and without possessing either !'

Fishers for compliments are apt to make strange catches. A curate complaining to Dr South that he had only been paid five pounds for preaching at Oxford, the Doctor rubbed the sore by declaring he would not have preached such a sermon for fifty pounds. Julius Beer playing to Rossini a funeral-march he had composed in honour of his uncle Meyerbeer, was delighted by the *maestro* listening attentively and applauding when the performance came to the end ; but his delight was somewhat damped at hearing his judge's 'Very good, very good indeed!' supplemented with :

'But it would have been better if it had been you who were dead, and the funeral-march had been your uncle's.'

'Will you please to insert this obituary notice?' wrote a country editor's correspondent. 'I make bold to ask it, because I know the deceased had a great many friends who would be glad to hear of his death.' Just as innocently did the negro propose 'De Gubernator ob our State! He come in wid much opposition ; he go out wid none at all ;' and the king of Portugal greet Landseer with : 'Ah, Sir Edwin, I'm glad you have come ; I am so fond of beasts!' There was more mischief in the *double-entendre* of the French dame who, upon a newly married friend exhibiting a monkey her husband had bought for her, exclaimed : 'Dear little man, it's so like him!' And there was no misunderstanding Macready's reply to the actor's 'I had the honour of playing Iago to your Othello at Bath twelve months ago ; don't you remember me, sir?' 'Remember you, sir? I shall never forget you !'

Lord Palmerston once wrote to a friend : 'Our new little gardener who has now been with us a year and a half, is a clever intelligent fellow ; and when we have taught him the management of fruits and flowers and how to plant trees, he will, I doubt not, prove an excellent gardener.' A comical encomium truly ; and as much to the purpose as the Scotch drover's patronising recognition of a certain clergyman : 'Ye dinna ken me, but I ken you. I'm whiles in your parish. There's no a better liked man anywhere ; yer own folk jist adore ye. *Who cares about preachin'?*'

Scottish ministers seem to be much favoured in this way. A clergyman visiting a sick man, as he was leaving asked the invalid's wife if she went to any church, and was told that she and her husband went to the Barony Kirk. 'Why didn't you send for your own minister, Dr Macleod then?' was his natural query. 'Na, na, sir, deed no,' came the answer ; 'we wadna risk him ; this is a dangerous case o' typhus.' Dr Thomson taking for his text, 'Look not upon wine when it is red in the cup,' enlarged upon the evil effects of drinking, upon the head, heart, and purse. As the congregation departed, two old cronies, given to taking more than a wee drap, talked over the sermon. 'Did you hear yon, Johnie?' quoth one. 'Did I hear't? Wha didna hear't? I ne'er winked an e'e.' 'A weel, an' what thought ye o't?' 'Adeed Davie, I think he has been a *lad* in his day, or he couldna ha ken'd so weel about it ; he's been a sly hand the minister!'—a reply somewhat akin to that given by the Scotch gardener, as recently related in these pages. Not but what English churchmen hear odd things sometimes. Riding out near Leeds, the Archbishop of York came upon an urchin busily engaged collecting road-dirt. Pulling up, he said : 'Boy, I know your face. You were at the Leeds Ragged School, and obtained a prize for drawing!' 'Ya, mon, I were,' replied the boy. 'I hope you keep up your studies in that art?' said the Archbishop. 'Ya, mon, I do. Look you yeere ; that's a model of a church ; them's the pews, and there's the vestry, and that's the poolpit.' 'Very clever indeed,' said the Archbishop. 'But where's the parson?' 'O ay, mon, but it takes a deal of muck to make a pa'sen,' said the unsophisticated youth. His Grace rode on.

An American editor travelling by steamer repaired to the ship's barber for a clean shave. Upon offering the darkey payment, the dime was rejected with: 'We nebber charge editors nuffin.' The astonished man remonstrated, arguing that there were a good many editors travelling just then, and such liberality would prove ruinous to the razor-wielder. 'Oh, nebber mind dat,' said the barber. 'We make it up off the gemmen.' When a lady giving evidence in a Kansas court refused to answer a question on the plea it was not fit to tell decent people, her questioner blandly said: 'Well then, step up and whisper it to the judge.' Lastly, a published report of an Irish benevolent society had a paragraph running thus: 'Notwithstanding the large amount paid for medicine and medical attendance, very few deaths occurred during the year.'

## THE HAMILTONS.

## CHAPTER XIII.—THE RESULT OF THE MESMERIC INFLUENCE.

AFTER the blacks' visit Bessie was ill for some days with a low nervous attack, which made every one very anxious both about her and the baby, who suffered with its mother. They were all so occupied in watching and tending her, that no one noticed that Phyllis's cheeks grew paler and her step more languid every day. She lost her old untired energy and her sweet bright looks; her eyes were dim and heavy, and she often stole away to her own room, where she would lie on her bed for an hour or two in a sort of stupor, that had none of the refreshing virtues of sleep. It was Bessie who, when she became once more convalescent, noticed the change in her sister. She watched her for a day or two without speaking on the subject; but at last she called the girl to her, and questioned her seriously as to the state of her health. To all her inquiries as to what was wrong, Phyllis at first answered 'Nothing;' but at last she confessed to restless nights, to sleep disturbed by frightful dreams, to a feeling of constant tiredness during the day; but 'Still you know I'm not ill, Bessie. There really is nothing the matter with me.'

'My dear,' said Bessie gravely, 'you may struggle against weakness as you will, but you are decidedly out of health. You are just one of those people who go on trying to conquer illness, and suffering in silence, till at last they are obliged to yield, and confess that they are only mortal after all.'

'I am not suffering,' said Phyllis languidly. 'At least I am only tired. Bessie, will you think me very weak and fanciful if I tell you what I think would make me quite strong again?'

'You are the last person I should think of accusing of indulging weak fancies,' answered Bessie, smiling.

Phyllis roused herself and spoke almost eagerly. 'I should like, if you can spare me, to go away for a little while—quite away from here. You can do without me, now that Judy Maloney has come. I know you will miss me, dear Bess, but you have Robert, and I am very little good to any one as I am just now. I believe that if I could go away for two or three months, I would come back quite well again.'

Bessie was silent for a little, turning over this proposition in her mind. She knew that she would miss her sister exceedingly, but at the same time she knew that what she said was wise and true. She believed that, for more than one reason, absence from Hamilton Farm and a thorough change of scene were the best things for Phyllis at this time. Perhaps she understood the workings of the girl's mind and heart better than any one else, better even than the girl herself did. She had noticed the gentle coldness with which Jack had been treated ever since the evening when they had all sat together in the parlour and talked of their escape. And she had noticed also the proud pained look on Jack's face when, on his coming in from his work, Phyllis would take the opportunity of quietly retiring from the room. He would stand and look after her for a minute with an expression half puzzled and wholly hurt, and then turn away impatiently to take up a book or newspaper, which Bessie felt sure he did not read. Altogether she thought that a temporary separation would do neither of those young persons any harm. They might probably come to a clearer understanding of themselves and one another, apart than together.

'You are quite right,' she said, after thinking all this. 'The fact is, Phyllis, that loath as you are to confess it, you are only a woman after all, and have got nerves just like the rest of us. You were thoroughly unstrung on that dreadful day, and you need a change to put you right again. I will write to my old friends the Randolphs this evening, and ask them to take you in. I know they will be charmed to have you.'

If during this period disturbing influences were at work with Phyllis, it is but fair to state that they were even more keenly felt by James Hamilton. Robert used to wake up in the night sometimes, and looking out of his bedroom window, would see his brother pacing the margin of the lake like a restless spirit, and would smile to himself with the calm experience derived from four years of matrimony. When he told Jack of Phyllis's projected departure, he noted the red flush that rose to the young man's face and his subsequent paleness and dejected looks. 'I am very glad she is going,' Robert remarked calmly. 'Of course we shall miss her; but it is hardly fair to keep a girl like that shut up in this quiet place, without a chance of seeing a little of city life. She was almost a child when Bessie and I married, and can hardly remember clearly any life but this.'

Jack glanced at his brother; but he was perfectly grave and earnest, and not the shadow of a smile lurked in the depths of his large soft eyes. He looked away again quickly, smothering a sigh. 'It is quite right,' he said. 'As for me—I have been a fool, and lost my chance.'

'I think you have,' replied Robert quietly.

Some nights after this Jack was sitting reading in his own room. The rest of the household had been asleep for a couple of hours or more, and a profound silence rested over everything. It was a lovely night, moonless, but with the soft light of the stars reflected in the lake. Not a breath of wind stirred the branches of the gum-trees; it seemed as if scarcely a blade of grass moved. Jack sat with his door ajar, for he liked the cool night-



air and the smell of the mignonette which was blossoming in Phyllis's garden. Suddenly, as he read, it seemed to him that he heard a slight sound. He laid down his book and looked fixedly at the door. Beginning to think that he had been mistaken, he heard it again; scarcely a noise, but a sort of ghostly rustling, and then—he was sure of it—a long deep-drawn sigh. He rose and walked quickly to the door; and looking out, to his intense surprise and alarm, he saw Phyllis standing in the veranda in her night-dress and with the tresses of her unbound hair falling round her. He approached her softly, and spoke gently. 'Are you ill?' he said.

There was no answer; the white figure did not even turn its head, and a chill fear crept over him, such as a man might feel in the presence of a disembodied spirit. He advanced nearer, till he almost touched her; but yet she neither moved nor looked at him. And then, seeing her face more clearly in the starlight, he noted that her eyes were wide open and fixed on the lake. Some disturbing dream had caused her to rise and walk in her sleep. For an instant Jack thought of calling up his brother; yet a strange reluctance that any one except himself should know of this midnight wandering came over him; and besides, he did not like to leave the somnambulist even for an instant.

Another long heavy sigh escaped from the breast of the sleeping girl, and then some words came from her lips which made the watcher start and thrill all over with mingled delight and sorrow and pity. 'Jack, Jack, Jack!' she uttered in an intense beseeching whisper.

He could scarcely refrain from answering her, the words 'I am here, my darling; were so near his lips; but he did not pronounce them. In another moment she leaned back against the veranda, as if exhausted, and drew her hand wearily across her brow. Fearing she was going to fall, Jack gently carried the unconscious girl through the open door of her own room. There he laid her on the little white bed, and kneeling, gazed with reverent anxiety at the pale face.

'What she must have suffered silently,' he thought, 'before it could come to this! My poor darling! And I, who thought her so strong!'

Then another thought came to him as he knelt. He had mistaken her so utterly in one respect, was it not possible that he might have mistaken her also in another? Was it not possible that this curiously self-contained girl might be capable of loving with all the tenderness and perhaps more than the strength of other and weaker women? And was it not also likely that the proud courage which made her strive to hide her shaken nerves and physical illness, might also make her conceal all sign of a love which she was not sure was returned? He was pondering those things, when the girl, who had lain quite still for some minutes, moved uneasily, and gave a low shuddering moan. 'Oh! what shall I do? What shall I do?' she murmured in a pitiful way. The next instant she was sitting up wide awake, with a flush on her cheek, and a protest on her lips as she beheld the kneeling figure at her bedside.

'It is only I,' he hastened to say. 'You seemed ill, and I could not help coming to see what was the matter. You were dreaming; were you not?'

he went on, trying to give her time to recover herself.

Phyllis tried hard to gather together her scattered faculties. 'Yes,' she said slowly, and pressing her hand over her eyes. 'I have such horrible dreams now! Did I call out very loud?'

'O no,' answered Jack. 'Only I happened to hear you. Now I am going to bring you a light and something to calm your agitation.' And without listening to her faint protest, he went to the parlour cupboard, and poured out a glass of wine. When he went back to her room with his candle and the wine, the girl had risen and was seated in her dressing-gown. She drank the wine without speaking; but as she gave him back the glass she said, flushing: 'Thank you very much for being so kind. And please—don't say anything to Bessie.'

'I will not say anything till you give me leave,' he answered, smiling. 'Now you must do what I tell you. Go back to bed, and leave your light burning and the door ajar. I am going to sit in my room with the door unlatched, so you will have the feeling that some one is near you.'

She looked at him gratefully, and gave him her hand. 'You are very kind,' she said; 'I will do what you wish.'

When they met at breakfast next morning, Phyllis was paler than usual, and there was a strained, anxious expression in her eyes, which did not escape Jack's notice. She spoke very little during breakfast, but when it was over she came up to him with a flush, tingling her white cheeks.

'I want so much to speak to you,' she said. 'Can you spare me a few minutes?'

'All day, if you like, Phyll,' returned the youth with a smile.

They left the house together, and walked down towards the lake. Phyllis turned along by the water's edge, and led the way to a place where she often sat. It was a hollow in a grassy bank, where there was shelter from every wind, and where the soft grass made a natural couch. A large tea-tree which grew on the top of the bank spread out its olive-green branches overhead for roof, and in front was a beautiful view of the lake, with its clusters of tall reeds swaying gently backwards and forwards; of the low green shore opposite; and of the blue range of hills in the distance.

Phyllis seated herself on the grassy couch, and Jack sat down beside her, half dreading the questions which he knew were coming.

'Tell me,' she said, looking at him with her clear large eyes, 'where you found me last night?' Jack hesitated for a moment; and she went on still more earnestly: 'Do tell me the truth. It will not hurt me. I was out of my room; was I not?'

'Well—yes,' he answered. 'You were standing in the veranda. There is nothing to be frightened about, you know. Your nerves were overstrained that day when you were so brave, Phyll, and they are taking their revenge on you now. Probably it will not happen again.'

'This is the second time,' she murmured in a low voice. 'The other night I awoke and found myself standing out there. I was so frightened!' Then she put her hands up to her face, unable to control the trembling which shook her. 'O Jack!' she exclaimed, 'don't despise me for being so weak.'

Jack rose from his seat beside her and knelt on the grass at her feet. 'Phyllis,' he said, 'I reverence and admire and love you more than any other being in the world. O my darling!' he went on passionately, 'I thought till last night that you were too brave and strong and grand to need my love. But when I carried you in my arms and felt you so weak and helpless, I cannot tell you what a great hope and joy took possession of me. Darling—let me watch over you all my life; no one else could do it so well!'

Her beautiful proud head was bowed now with all its wealth of rich hair, on Jack's shoulder. 'Are you sure this is love?' she whispered. 'Is it not merely pity?'

Jack laughed in the gladness of his heart. 'Pity!' exclaimed he; 'ah! if you but knew how wretched I have been, the pity should have been for me!'

'I thought—you did not care; that is'—

'I have loved you, Phyll, long and devotedly,' he answered. 'Indeed, I loved you from the first.'

Where now had all the coldness and estrangement of the last weeks fled to? How was it that those two, who had been so silent and reserved towards one another, now found so much to say? And was this gentle and timid girl the heroine who had appeared so strong and self-reliant?

'Phyllis,' said Jack, after an hour of murmured love, with intervals of silence that were still more happy, 'are you really so much braver than other women, or are you only more generous?'

'I don't think I am really brave,' she answered, smiling; 'but I could die for any one I love. Do you remember,' she went on, looking shyly into his face with her lovely eyes, 'the old ballad about Helen of Kirkconnel? They shot at her lover, and she received the arrow in her own breast. Well, I have often thought that that would be the very happiest kind of death to die—for those we love, Jack!'

'I understand,' he whispered, much moved. 'I shall take good care in future that the arrows meant for other people do not hit you, my darling!'

The girl smiled dreamily, and was silent. I think that her instinct told her that a nature like hers, prone to self-sacrifice, would probably find ample opportunities for it in the life before her. The faithful breasts that offer themselves to catch the arrows of life, in order to shield others from pain, are usually taken as shields by the weaker or more selfish. I do not know that Jack, though he had many good points about him, was by any means an ideal hero, or that he would always refuse to be saved from trouble or inconvenience, even at the cost of the same to a more generous nature. But in the first glamour of their love-dream it was scarcely to be supposed that either of the lovers should think ever so dimly of this.

The dinner-bell rang from the veranda, and Jack rose to his feet.

'What will Robert say to you?' said Phyllis, with well-feigned gravity. 'You have not done one bit of work to-day, you naughty man!'

'He will say,' answered Jack, as he drew her hand through his arm, with the proud sense of possession, 'that I have done the best morning's work I ever did in my life.'

Probably Robert had guessed something of

Jack's doings. At anyrate he was sure of it when, standing at the window waiting for his dinner, he saw a tall and handsome couple walking slowly up together from the loch-side towards the house.

'Look here, Bessie!' he exclaimed.

Bessie looked out at the window, and her soft eyes filled with tears. 'O Bob!' she said tremulously, 'do you think they have made it all right?'

'I am sure they have, little woman,' he answered, smiling. 'Have they not made each other miserable for quite long enough?'

Phyllis wanted to make her escape to her room, under pretext of smoothing her ruffled hair; but Jack kept firm hold of her hand, and drew her into the parlour, and up to where Robert and Bessie were standing by the window.

'She has promised to be my wife,' he said, still holding her hand. And Bessie threw herself into her sister's arms in a shower of April tears.

'What am I to say to the Randolphs?' asked Bessie at dinner. 'I had a letter this morning, saying they would be charmed to have Phyllis.'

'Say,' said Jack, looking fondly at the downcast blushing face beside him, 'that I hope to escort her into town in about a fortnight, and that she is going for the purpose of buying her wedding trousseau.'

The simple events which I have chronicled happened nearly twenty years ago. When I visited the island in 1875, the aspect of Hamilton Farm had somewhat changed. The little bush-house of which I have written, had been added to on every side, till the original building had been quite lost sight of, and it had become a noble mansion. Round it on all sides sloped lovely gardens and orchards, all ablaze with scarlet geraniums, roses, and lilies, and where peaches, grapes, and nectarines were ripening in the warm sun. From the windows you could see the chimneys and gables of another picturesque house, embowered in fine trees and shrubbery, and with its lawns, gardens, and conservatories all bathed in the golden sunshine. The property of the Hamilton Brothers had extended far beyond the bounds of the island; miles of country on the mainland belonged to them, and thousands of sheep, and herds of cattle were theirs. They spend half the year in Adelaide now, with an occasional trip to Europe, where their sons were sent for their education. But they were all at Hamilton when I visited them, a charming little colony, with both houses full to overflowing with guests, who enjoyed their graceful hospitality.

Robert Hamilton was the handsomest old man I ever saw, tall and straight, and with hair and beard of flowing silver. Bessie was a little fairy godmother of a woman, so slight and small, with the gentlest voice and sweetest smile imaginable. Jack came in after dinner, a fine-looking man still, with hair scarcely touched by time, and plenty of youthful fire remaining in his dark eyes. We all strolled over to the other house, which was spoken of as the Grange, and there we found a gracious and queenly lady sitting on a garden chair on the lawn under a fine acacia tree. Her beautiful hair was golden still, and the little lace cap she wore scarcely hid its beauty. Her figure had developed into the perfection of

matronhood; and her husband now loved to see her clothed in silk or velvet. Probably he had had enough of cotton gowns and sun-bonnets in the early days of their acquaintance. Bessie and Robert had many sons and daughters. Phyllis and Jack had four sons, two of whom were, with their cousins, being educated in Europe. I think Phyllis would have liked a girl, for she had appropriated a little fair-haired blue-eyed fairy of Bessie's, whom she kept with her always, and refused to give up.

I spent a delightful time at Hamilton. We drove and boated and went wild-fowl shooting through the bright cool days; and in the evenings there were the most charming little family gatherings. I made true friends there, and left them with regret.

THE END.

### A VISIT TO THE MINERAL CAVES OF HUALLANCA.

NOTWITHSTANDING the political difficulties with which, like all South American countries, it is from time to time distracted, the Republic of Peru appears to be advancing in commercial prosperity, a result which is in no small degree due to the energy and enterprise of foreigners. Mr Henry Meiggs, the well-known American contractor and capitalist, has completed a line of railway which is a wonderful piece of engineering, and has placed the summits of the Andes in direct communication with the sea. One of the most fertile portions of the globe, and a marvellously rich silver-mining district, tapped by a great tunnel—another of Mr Meiggs' undertakings—are now within hail, so to speak, of the commercial markets of Europe. It is intended that the line of railway just mentioned should be continued to the eastern side of the Andes, where the finest coffee, cocoa, rice, and sugar-cane are grown; and when this work is completed, it is believed that 'we shall have a great European emigration, and we shall find it practically demonstrated that Peru contains more gold in its eastern rivers than California, Australia, and New Zealand.'

So says Mr Sewell, a mining engineer of large experience who some time ago visited these regions, and whose journeyings to the mineral caves of Huallanca we propose briefly to follow. Several expeditions, it may be remarked in passing, have recently been made to these rivers by Americans and others, all of whom have returned with gold, speaking highly of the great riches existing there, the only bars to the development of which have hitherto been the want of roads and the difficulties of transport.

In order to reach the province of Huaras and the caves just mentioned, Mr Sewell went from Lima up the coast to Casma. Here he made his preparations, and procured mules and the necessary equipment for crossing the first or coast range as it is called, of the Andes. No very great difficulties were experienced in the ascent, except from the first encounter with rarefied air; and on reaching the summit of the Sierra Negra, fourteen thousand feet above the sea, one of the greatest sights the mind can picture to itself was unveiled

to the eye of the traveller. Below, at a distance of about five thousand feet, the beautiful and cultivated valley of Huaras was seen, with its picturesque city of some twelve thousand inhabitants. Above it a vast ocean of snow in the distance, rising to an altitude of eighteen thousand feet—a truly imposing spectacle. North and south, as far as the eye can reach, is nothing but snow; and to the imaginative mind the snow-clad peaks appear like so many ladders leading up to heaven.

With the view of getting accustomed to the rarefied air, Mr Sewell and his party remained for some days at the pleasant city of Huaras (which stands at a height of ten thousand four hundred feet above the sea), thus preparing themselves for the more arduous journey across the true Andes range, which they knew would take them up to an elevation of seventeen thousand two hundred feet before they reached the town, river, and silver-producing district of Huallanca. Coming at length to the foot of the snowy Andes, they were caught in a snow-storm, and were inclined to delay their journey; but their guide and muleteer would not hear of it, not wishing to be thought faint-hearted. They commenced climbing with great difficulty, the mules slipping and snorting with fear, as they could not find a safe footing, from the narrow track being covered with snow. The party lost their road several times; but after four hours' riding the snow-storm ceased. Then, however, they had a new foe to face in the fearful glare of the sun on the snow; and the unfortunate muleteer became blind, and had to be left behind for the time.

On that trying day three parallel ranges were crossed, one having an elevation of sixteen thousand eight hundred feet, and the others of about seventeen thousand two hundred feet. Here another danger met them in the shape of wild-bulls, which often attack men and beasts and hurl them over precipices. Two of these had to be killed, as they were met on a narrow pathway not two feet wide, and nothing would induce them to get out of the way. The descent of the eastern slope of the Andes was most dangerous, as the road was slippery with snow and mud, and in some parts the mules were literally obliged to slide down.

After several times fording a river, which was much swollen by the melting of the snow, the party at length reached the mineral caves of Huallanca, which are situated at an elevation of fourteen thousand seven hundred feet above the level of the sea. The inspection of these caves is described as a very trying affair, as the rarefaction of the air caused so great an increase in the pulsation of the heart that it was dangerous to move about except with great care. These silver mines exhibit a very extraordinary geological formation, being found in the heart of a coal-formation which has been upheaved by the outburst of porphyry. Some of the argentiferous copper ores contain about eight hundred ounces of silver to the ton, and others as little as one hundred and one hundred and fifty ounces. The latter have hitherto been thrown aside, as in their case the cost of carriage to the coast was too great. Mr Sewell recommended the owners to collect these poorer ores and smelt them in a reverberatory furnace into 'regulus;' by which means the



proportion of silver would be raised to some six hundred ounces to the ton. The operation is of course rendered the more easy as coal is to be had within a few yards. The ore is found in the shaly portion of the formation as well as in the sandstone; in the latter it is found in a most singular condition—in huge *oughs* or caves, many of which are as much as twenty-five or thirty feet in length and depth. These caves are coated with from two to three inches of argentiferous ores, and millions of crystals of tetrahedrite are destroyed by the picks of the miners in breaking down the ore; some of the caves have yielded as much as thirty thousand pounds' worth of silver in a single day. The way in which they are discovered by the native miners is also singular. They follow for months in the rock, by blasting, a thin little cleavage of about an eighth of an inch; this contains chalcedony, and they drive horizontally and at an incline of forty-five degrees, in order not to miss their object. These mineral caves of Hualanca vary in size from a few feet to that mentioned above.

In conclusion, we may perhaps be permitted to call attention to a remark of Mr Sewell's respecting the enormous increase in the cultivation of the sugar-cane in Peru, a fact which we believe is by no means generally known in this country. The value of the machinery for the manufacture of sugar introduced within the last ten years is estimated at about three million seven hundred and fifty thousand pounds; and the outlay on the preparation of land for the sugar-cane at six million two hundred and fifty thousand. Those who are best acquainted with such-like matters express the opinion that at no distant period no country will be able to compete with Peru in this industry, the climate offering no difficulties or risks to the crops. From want of rain on the coast, the sugar-cane is cultivated by means of artificial irrigation.

#### A NEW SPECIES OF LITERARY FORGERY.

In the annals of English literature there are several outstanding instances of fraudulent authorship familiar to most reading people. The sad story of Chatterton, the 'Ireland forgeries' of Shakspeare, and the deception practised by Mr Surtees on Sir Walter Scott, might be mentioned as examples, and some might be inclined to lengthen the list by the addition of the Ossianic poems. In all these, the distinguishing feature is an imitation of the style and tone of authors of a by-gone age, and the presentation of this counterfeit as a genuine production. The particular kind of knavery which forms the subject of this little notice is somewhat different from these, and is of a simpler description. Probably, too, it is less common. The element of authorship or literary peculiarities does not enter into it, for it is a question not of forging names or styles, but dates. The story is as follows.

Some months ago a gentleman purchased from the catalogue of a most respectable bookselling firm in London an old Bible (Geneva translation), with the year 1569 appended, and bearing to be printed by the Deputies of Christopher Barker. The book was in excellent condition; but the date on the title-page of the Old Testament seemed slightly imperfect, a small slip of paper having

been pasted below to strengthen the part affected. Nothing, however, was thought of this, as the New Testament, both on the title-page and again at the end, was plainly dated 1569, and the volume—Old and New Testaments combined—was unquestionably one publication. No suspicion existed for many months regarding the book, and its pedigree of more than three hundred years was held in due respect and veneration. It had, moreover, the reputation of being the oldest known copy of the Scriptures in the district.

This irreproachable character came suddenly to an end in a very accidental way. The owner happened to be looking over the late Dr Eadie's publication, *The English Bible*, and by chance noticed that while the first edition printed in Geneva was published in 1560, the earliest edition of the Geneva Bible printed in England was in 1575—that is six years later than the year of publication of the volume in question. Further, it appeared that the license or patent to the Deputies of Christopher Barker, by whom the book was printed, was only granted in 1589, twenty years after the date of the Bible. Here was a serious discrepancy, the solution of which disclosed a perverted ingenuity worthy of a better cause. A closer examination revealed that the dates in all the three places had been altered by some former proprietor of the book in the following manner. The original date is not as it looked, 1569, but 1599; and by a process of erasure the downward stroke of the first 9 had been obliterated, and added with a pen to the top; thus converting, in a very obvious way, 1599 into 1569. The alteration is marvellously well done. The six in each case is necessarily a little higher than the other figures, but not suspiciously so; and a very minute inspection also shews the slightest possible difference in the shade of the ink of the added part. Otherwise the page looks perfectly right; and it had successfully deceived the booksellers already referred to. On holding up the leaf, however, to a strong light, the weak point, or in this case we might say the thin point, is at once discovered. In each leaf, exactly below the 'manufactured' six, a faint thinness in the paper is perceptible, caused by the process of removing the tail of the nine, thus making assurance of the forgery not only doubly but trebly sure. Of course it need scarcely be said that the only supposable object of this villainy was to render the book more valuable by adding thirty years to its age. Perhaps in the circumstances it may not suffer in this respect from the impudent lie written on its forehead, for it may now have an adventitious value, as a curious and uncommon instance of literary fraud!

This special kind of falsification might be described as unique, but for one other notable instance of a similar nature two centuries ago—that of Captain Thornton and the 'Lauderdale Bible.' About the period in question, an idea—partly originated by Fuller—was current that in some rare editions the apostle Paul designated himself 'Paul, a knave of Jesus Christ.' No such Bible really existed; and the Duke of Lauderdale, the well-known Scotch viceroy of Charles II., having in vain endeavoured to procure one, it occurred to Thornton, a worthless fellow by all accounts, that he could by a little ingenuity gratify His Grace and serve himself at the same time. He got a Matthews Bible dated M.D.XXXVII. and by careful

manipulation he erased the XVII., thus leaving the date 1520 instead of 1537—fifteen years earlier than the oldest English Bible extant, that of Coverdale. Not content with this daring imposition, he in a similar manner rubbed out the word 'servaunte' in Romans i. 1, and substituted 'kneawe,' made up of letters cut from other parts of the volume, so that the verse read 'Paul, a kneawe of Jesus Christ,' instead of 'Paul, a servaunte of Jesus Christ.' The book thus mutilated was taken to the Duke, who gave him seventeen guineas for it. (*Lewis's History of Translations*, p. 47.) Although 'the mark of the rasure was very visible,' Lauderdale was apparently pleased with his unique bibliographical treasure, and had his arms and coronet stamped on both sides. How the forgery was discovered is not mentioned; but Dr Eadie remarks that a volume said to be the identical copy was sold at a book-sale in London in 1865. Hence its being sometimes called the 'Kneave Bible,' which designation in more senses than one it certainly deserved.

It would be interesting to ascertain if any other examples of this species of literary forgery are known to bibliographers. Lewis, in the work already quoted, seems to think 'there was more than one copy which had been thus played the kneave with;' but after some little research, we have not been able to discover another instance of the kind.

#### FRESH-WATER FISH.

FOR many years past there have been various measures enacted for the protection of the salmon, which has been justly regarded as the king of our edible fishes. Recent inquiries made by the Royal Commissioners have also, we believe, shewn the importance of protecting trout during a certain season of the year. But up to the most recent date no one had apparently taken steps for the protection of our other fresh-water fishes such as pike, roach, perch, tench, barbel, &c. These, which still go by the somewhat ignominious title of 'coarse fish,' have been suffered to be captured at will and during any season of the year, regardless of the fact that at certain seasons they are unfit for food. Now, however, that the English legislature has thought it within its province to recognise the importance of protecting the scaly denizens of our fresh waters, it is to be hoped that these will receive the care and the recognition their excellence deserves. The object of the legislature is, by the suppression of netting and angling during certain months of the year, to give fish such as pike, perch, roach, barbel, &c. an opportunity for their increase in quiet, and thus insure extended sport more particularly to the hard-toiling men who delight in the amusement of the angle. Norfolk and Suffolk having an exceptionally vast acreage of water, such interference with the rod has not been considered necessary, as in those counties the anglers are few and fish many. In the midland counties, however, anglers are legion, in Sheffield there being no fewer than eight thousand, many of whom sally out upon every available opportunity and line the banks of the canals to the extinction of almost the smallest fish. This fact the midland men themselves have been the first to recognise, and the present movement for fence months and the entire suppression of netting with small mesh,

originated in that quarter; deteriorating causes for which they virtually pray the government to protect the waters against their own excessive attachment to the sport, and the consequent destruction and waste by all alike of undersized, immature, and unseasonable fish.

But this is not the only purpose which actuates the more philanthropic, for whatever may be the contemptuous opinion held in regard to 'coarse fish,' there exists a large section of the community who do not share in the prejudice, and to whom a fillet of pike, a broil of perch, or a fry of gudgeon, are as acceptable as many an expensive dish to their more favoured fellows.

Next in importance to the possession of the fish is the mode of cooking; and we purpose here to lay a few hints before our readers, aiming as much at simplicity as is possible. If fried, which offers many recommendations, the first consideration is the cleaning of the fish. With trout, roach, dace, perch, &c. wipe the fish well with a soft dry linen cloth; then wrapping a little of the cloth round a finger, clean out the throat and gills in the best way it can be managed, without scaling, gutting, or even using any water about the fish. Lay them on a nicely cleaned gridiron over a clear fire, flour them, and turn them very frequently. When they are done enough, take off their heads, to which the entrails will be found adhering, put a good piece of butter suited to the size of each fish, and seasoned with salt, into the inside, and serve them up with their own gravy. Some, in broiling roach, dace, &c., as soon as the fish begins to grow brown, make a slit only skin deep in the back from head to tail, and again lay them on the gridiron. When the fish are enough done the skin readily peels off with the scales on, leaving the flesh, which will have become very firm and perfectly clean. They then open the fish, take out the inside, and use anchovy, or butter and mustard for sauce. This method prevails in Yorkshire as well as on the Thames by the fishermen's wives, who are great adepts in the art of entertaining their customers with a dish of dace or gudgeon.

To fry fish, the fact should be ever kept in mind that frying is baking or roasting in boiling oil. It is not the bottom of the pan that browns the fish, for to that, if it touched, it would stick, and losing its skin, become an unsightly greasy mass; but it is the exceeding high temperature which oil, butter, or lard attains when at boiling point, that gives that semi-transparent brown appearance to fried fish, so acceptable to peer and peasant alike. But how are we to know when the oil boils and therefore to lay the fish in its oleaginous bath? This is easy; by trying it with a piece of white paper, a finger of bread, or a silver spoon; if the bread is browned, or the paper or spoon comes out dry, the fat boils.

Perhaps the barbel is the most despised of our fresh-water fish, but with the French, who are no mean authorities upon the virtues of fish, barbel are thought highly of. Badham assures 'all who may be incredulous, that barbel simply boiled in salt and water, and eaten cold with a sprinkle of lemon-juice, will be found by no means despicable fare, and we particularly recommend to their notice the head and its appurtenances.' Bloch advises us to boil them with a bit of bacon to heighten the flavour. One precaution,



however, should be taken before cooking: the roe should be entirely removed, as a very small fragment will produce with some much the same effect as that caused by shell-fish. We believe the secret of rendering every portion of the barbel wholesome is by boiling it in three parts of water and one part of vinegar, just scalding it for about two minutes; afterwards, if not intended for immediate eating, hang it up in a cool place, and it will dress quite as well after a day or two as if fresh caught.

Whatever doubt there may be respecting the gastronomic claims of the barbel, none can assuredly exist in regard to its little cousin the gudgeon, which for ages has held its own as a most wholesome fish. Time was when trips were made up the Thames, alone to enjoy this dish; as the more aristocratic go down the river to indulge in white-bait. But from whatever cause it may have arisen, the once famous Thames gudgeon have greatly deteriorated in size and number, and to secure sufficient for a dish the punt wells of the fishermen for a mile or more would have to be carefully searched. These dainty fish cannot be cooked too plainly, a little fried parsley served with them being all the embellishment they require.

The bleak, Walton's fresh-water sprat, makes a palatable dish fried in butter or egg and bread crumbs. Even smaller fish than the bleak possess no contemptible flavour. A fry of minnows surpasses, in the estimation of some gourmets, even white-bait; and the loach, as Izaak truly says, 'is a dainty dish at table,' the best being 'he that feedeth and is bred in little and clear swift brooks or rills, over gravel, and in the sharpest streams;' the one characterised 'by a forked prickle in front of the eyes' should be avoided as inferior, as should the common pond loach, strongly impregnated with the smell and taste of tank. The miller's thumb is another neglected but especial delicacy. 'The flesh of this species,' says Badham, 'becomes salmon-coloured by boiling, and is held in high repute.' Again, the pope or ruff, a fish generally thrown aside by the angler, combines the united edible excellences of the perch and gudgeon.

An excellent and inexpensive soup is readily made from eels. To every pound of eels—the smallest grigs are as good as larger ones—put a quart of water, with a little whole pepper, salt, parsley, and mint. Let it stew very slowly, till reduced to half the quantity, pour it out and force the meat through a colander with the back of a spoon. After it has stood all night, take off the fat. When heating the soup, thicken it with butter rolled in flour. This is an admirably nourishing soup, and when served with sippets of toast, agrees with the most delicate stomach; the rich and objectionable fat having been removed when cold, while as there is nothing 'snake-like' presentable to the eye, the prejudices of many persons against the eel when cooked in the ordinary way, are thus removed.

Carp, after being kept a few days alive in water free from the vegetable substances upon which they feed, become a luscious and nutritious dish even cooked *au naturel*; but with sorrel sauce or a squeeze of lemon, are converted into a *recherché entrée*. The false tongue of the carp has a European reputation as a delicacy. There are

special recipes for dressing carp, which from their expensive character are not appropriate here. With the economical Germans however, they are peculiar favourites, and from them we have the following method of making three excellent dishes—a soup, a stew, and a fry, with a single carp of about three or four pounds weight, of each of which we can speak highly from personal experience. They take a live carp either hard or soft roed, and killing it by a blow on the head, bleed it in a stew-pan, then scale it well, taking out and carefully preserving the entrails without breaking the gall, which with the parts adjoining, must be immediately separated from the rest, and thrown aside, as its slightest contact with the rest of the dish would injuriously flavour the whole. Every other part of the carp is convertible into excellent food. Having opened the maw, and thoroughly cleaned it, the roe is cut into pieces, and put in with all the rest of the entrails for the soup of the first dish. This soup is either made with the addition of gravy or strong meat broth accompanied by herbs and spices, well seasoned, and thickened with flour; or, when intended as a meagre dish, with that of a strong broth of any other kind passed through the sieve, a bundle of sweet herbs, and a seasoning of fine spices, salt, &c.

For the second dish or stew, having slit up the carp on one side of the backbone, through the head, and quite down to the tail, cut off the head with a good shoulder to it; take the largest half of the body, containing the backbone, and divide it into three pieces; which, with its portion of the head, are to be put with the blood in the stew-pan, where they are dressed in any of the numerous ways of stewing fish, by putting in three or four glasses of ale in lieu of wine, and a little grated gingerbread, and sometimes only a small quantity of vinegar, adding sweet herbs, spices, and seasoning to palate. When serving up this dish, it is not unusual to add a little lemon or lime juice.

For the fry or third dish, the remaining portion of the fish, divided as for a stew, is well dredged with flour, and fried brown and crisp in oil, or clarified butter. Thus, particularly if a few savoury force-meat balls, composed in the usual manner with the fish which makes the broth or gravy, be boiled in the soup, there is a dish not far removed from the richest turtle soup; a second dish in the stew may easily be made equally aspiring, on a small scale; and lastly, a most delicate third dish, in the fine fry, which completes this curious division and subdivision of a single carp. It may be well to note that carp should never be boiled.

The tench, although ever associated with the carp, differs widely in its habits, as while the one is most capricious in its feeding, the other is to be taken without any great amount of skill by the rod full nine months in the year; and generally through mild winters when the carp is proof against every temptation, and is said only to bite while the broad-bean is in blossom. The flesh of the tench is very firm and admirably adapted for stewing, its skin being pronounced by epicures to possess a savour comparable in its excellence to nothing else. The simple secret of how to prevent the breaking of the tender skin of the tench is known to very few cooks. It is, however, merely by placing the fish in boiling

fat and just turning it in the pan; and if for boiling, then taking it out, laying it in a cloth in boiling water until it is done sufficiently. Served with a sauce made of the young leaves of the field sorrel, it is a most appetising dish.

The worst way of cooking a pike is by the ordinary mode of baking it, which renders it, even with expensive stuffing and close attention, both dry and somewhat insipid. The fish should be separated into cutlets and fried. If boiled and served with horse-radish sauce, it becomes an excellent and satisfying meal. When fish are boiled, the liquor should never be wasted, as, if not too long kept, it makes excellent stock for many kinds of soup.

Since writing the above, an Act of Parliament has received the Queen's assent which restricts the uses of the net and rod entirely in public waters for the taking of fresh-water fish (excepting for scientific purposes) throughout England and Wales from 15th March to 15th June inclusive; and the uses of nets below a certain size of mesh, during the rest of the year. The counties of Norfolk and Suffolk, from reasons we have already given, are not embraced in this Act; thus in the rivers and 'broads' of East Anglia no restriction is placed upon angling, it being considered that 'fair fishing' by rod and line could never have any appreciably injurious effect upon their immense acreage of waters. It is but just to the anglers of Sheffield to give them the credit for this beneficial enactment.

### THE HIGHLAND BOTHY.

A JACOBITE REMINISCENCE.

THE following record, throwing another ray of light upon a time of stirring interest, was found among the papers of a Scottish gentleman of the last century. He seems to have had a loose, not to say eccentric habit of spelling and diction, which we have taken the liberty to modernise. The story is as follows.

In the days of which I write, porridge and milk for breakfast, brose for dinner, and porridge again in the evening, with occasional mutton on Sabbath, served to put pith in our sinews and marrow in our bones. There were no coaches on out-of-the-way northern roads in those days, and any man not content to stay at home moved abroad at his own peril on the back of his own horse or, more often still, afoot.

Craig-end, my worthy father's farm, was in Southern Ross-shire, in the valley of Strath Conan, a few miles south-west from Loch Luichart. When I as a lad had finally decided to become a doctor—Donald, my elder brother, naturally taking to the farm when the growing years began to tell on my father—I had to walk, or otherwise as I best could find my way to Edinburgh in the autumn, and return to Craig-end again in the spring, on foot; mayhap esteeming myself lucky getting 'a lift' for a mile or two here and there on a cart going my way, if I happened to fall in with a good-natured driver.

It is needless to say that Edinburgh was in an unsettled state during the autumn of '45 and the spring of '46, immediately before and after poor Prince Charlie's unfortunate attempt to regain the crown of his ancestors; and little, as you may

imagine, was done by students or professors at the college during that session. Early in the winter the women's heads had been turned by the gay doings at Holyrood; and what between the women's wheedlings and the fascination of the Young Chevalier himself, half the bailies and more than half of the population were Jacobites not merely in their hearts but openly. The Perthshire lads, the Ross and Inverness shire men in their ragged tartan and bare brown legs, carried all before them; and in every street and 'close' in Edinburgh the tartan and the Gaelic were triumphant. There was hardly a pair of trousers to be seen in the quadrangle of the university; the kilt became the fashion, and every stripling bitten by the prevailing enthusiasm had his claymore or his dirk at the service of the young 'king.' Many a student pitched his books to the wind that year, and threw in his lot with Prince Charlie's bare-legged lads at Holyrood.

I too, had I not been a canny lad, brought up a sound Presbyterian, after the faith of Calvin and Knox, ran a certain risk of having my head turned, although I was never at any time carried away by the stream of popular excitement. Once indeed I had my head nigh broken by a red-headed Highlander, for daring in a tavern in Gilray Wynd, off the Cowgate, to speak respectfully of a certain pamphlet I had laid hands on, entitled 'A Defence of the People of England,' by one John Milton, some plain truths from which I had unwarily quoted approvingly. Yet, though my opinion of the Stuarts was never high, and their Popish tendencies were hateful to my Presbyterian mind, I will admit that I, being somewhat skilled in music, loved the Jacobite ditties that then were in the mouth of every pretty lass; and on one occasion was constrained by the infection of enthusiasm to raise my cap and cheer with the best of them as the handsome and king-like young Prince rode, bowing left and right, along the Canongate, with the Cross of St Andrew on his breast, and above it a white rose; while fair smiling ladies, decked in ribbons of the loyal colour, waved handkerchiefs at every window and whispered blessings from every door-step along the street.

But as you know, the winter had scarcely passed before a different tale was told. The tartan disappeared; no more Gaelic was heard in the taverns: the English red-coats heard no cheers as they went along the streets; but saw only scowling Scotch faces gazing out upon them from the windows, and heard many a malediction, scarcely suppressed, as they entered the taverns for refreshment.

Early in April '47, when the college session broke up unsatisfactorily—Prince Charlie by that time playing the fool in France while his Scotch friends wept and bled and died—I started on my long homeward walk to Craig-end, feeling that my time during the two previous winters had been sadly wasted in Edinburgh; and that I might have worked to almost as much purpose among my father's cattle, or with my books by the kitchen fire during the long winter nights. There was no little danger in thus travelling alone; but I was young and fearless and eager for my mother's fire-side. I did at first twenty miles or more a day, increasing the distances, as my legs got thoroughly into walking trim, to twenty-five and even thirty

miles between sunrise and sunset. The winter had been very open, with now and again heavy rains. It was a great delight to me when I got fairly among the hills to see the young lambs, to hear the plover's cry on the moor, and once again to strain my eye after the lark soaring, singing away into the 'lift' so high.

I had stopped for several evenings on the road at the houses of farmers known to my father, and at wayside village taverns, where at first I was looked at suspiciously; but ultimately was generally made welcome to supper and a bed for my recent tidings of the march of events in Edinburgh. The weather had been fine, albeit showers and mists among the hills, until I reached Loch Lochy, where I had the luck to be ferried across gratis with a boat-load of sheep. Then the wind, which had been westerly, suddenly veered round to the north, and a keen hard frost set in; cold enough, as the old couplet has it, 'to freeze the wee birds' nebs to stane.' I started on my walk across the mountain track from Glen Cluny with misgivings in the morning, and did not need the warning more than one shepherd gave me as I passed him leading his ewes and lambs to shelter, that before nightfall, indeed before I should see the back of Dundregan, we should have snow. I was only two days' march or so from home, and was naturally eager if possible to reach Craig-end on Saturday evening. But the north wind bit my face almost into blisters as I crossed the moor, and retarded my progress seriously. In the afternoon I had the misfortune to miss my way, having mistaken an over-swollen tributary of the Coyletie for the river itself. I was tired and hungry, and very solitary, feeling uneasy too because of the uncertainty of my whereabouts, as the light began to fade, and large flakes of snow fell around me and battered against my face. I knew I was several miles from Knockfinn, and was accordingly eagerly on the watch for any human habitation where shelter could possibly be had for the night.

Not a farm, or even a cottage or hovel, was to be seen through the thickly falling snow, as I gazed from the top of a hill. Not a drop of comfort could I squeeze from my empty flask, not a crumb would my pockets yield. In despair I sat down behind a rock that jutted from the hill, making a temporary protection from the storm, and wondered whether I could safely spend the night there. But the increasing darkness and the whirling snow and bitter cold wind soon drove me on to the trackless waste once again. Wrapping my plaid about me tightly, I moved on in no happy mood, recalling the cases I had heard of travellers who had perished in the snow on such a night as this.

I had walked thus with clenched teeth about a couple of miles knee-deep in wet heather, and picking my way as best I could, when I thought I perceived in the darkness a slight depression in the level of the snow, which indicated a footpath. I followed it, filled with hope, to a burn-side, and thence down a slope to a level place in the shelter of the hill. Yes, there was a cottage; not much more than a hovel; but from the hole in the thatch there issued peat-smoke; and high up in the wall, in the aperture that served for window, I could see a flickering light as of fire on the hearth. My heart sprang out towards it joyfully. I believe I shouted in my mirth.

I knocked loudly at the door, feeling sure that on such a night as this no apology was needed for a summary demand for admission. There was no reply. I knocked again more urgently than before, bringing my heavy oak stick to play on the panel. Still no answer. Could they have gone to bed so early? Then I remembered that shepherds and others who rise with the dawn retire at sunset; so my staff once again woke the echoes.

A low growl rose from the interior, and then I heard a stern querulous voice say: 'Whisht, Jock, ye deil, whisht!'

I waited with what patience I could muster, but still no one came to the door. Then I tried the latch; but the door was fastened from the inside. I shouted; but the wind seemed to carry my voice round the corner of the house and away idly down the glen; the only answer was another half-suppressed growl from the seam under the door at my feet. Rendered savage as well as desperate, I stooped to the seam and cried: 'Won't you let me in? I'm perishing from cold. For mercy's sake, open the door!'

Then the querulous voice of an old man replied in a snarl that had not much more softness in it than the sound of the dog evidently by his side: 'No; I'll no open the toor; the house iss my own mifer, an' ye'll no come in. So make off wi' ye.'

'But I *must* get in. I'm starving—I'm——' My teeth chattered so that I could hardly speak farther.

'Ye "must" get in!' whined the same voice. 'It was a braw joke too whatefer that he "must" get in! No; ye'll no get in one inch farther. We like to know oor company here before we let any man in. Go on to Knockfinn. If you're an honest man, they'll maybe take ye in there.'

'Open the door, whoever you are,' I cried, losing patience in my misery, and stamping my feet outside. 'I tell you I *must* get in.'

'Stand there one minute longer an' I'll pit the togue on ye.'

What did I care for his dog? I gripped my stick tightly, and thundering against the door, in desperation shouted: 'I *shall* get in! Open your door, or I shall break it open!'

Then in the dinness above me, at the window in the wall I saw the head of an old man, whose glaring eyes deep under heavy eyebrows, and mouth firm-set shewed that I might expect little hospitality at his hands. In his hand he held a gun, the barrel pointing towards me.

'For the love of mercy, don't fire on me!' I cried, seeing from his expression that he was in terrible earnest.

'I *will* fire,' he said in the same savage tone; 'I *will* fire if ye are there after I count ten.'

And the wretch began slowly to count to the figure he had mentioned. Seeing that it was hopeless to expect anything at the hands of this misanthrope, I stepped back reluctantly, and faced the snow and the wind on the moor, which had now risen to a terrific storm, hiding alike star and cloud, and leaving the earth one vast expanse of dreary black and white. I had now not the faintest idea of my way, and looked about to see, as I turned the gable of the bothy, whether there was any outhouse, or even pig-sty or peat-stack, where I might have shelter. But all about the house was bare and inhospitable; so I, having



nothing better before me, faced the hill and began to trudge upward as best I could.

I had walked a few hundred yards, when a sudden idea occurred to me. I turned back to the bothy where I had received such a rebuff, and quietly seating myself under the window, pulled my flute, the companion of many a journey, from my pocket. Having pieced it together, and rubbed and breathed upon my benumbed fingers to promote circulation, I began to play in my very best manner the stirring melody, at that time in the mouth of every loyal Highlander, *Wha'll be King but Charlie?* and waited tremulously for the effect. I had played through the first verse, and was beginning to think as I began the second that the notes were being carried away on the wind, when I heard the querulous and detested voice of the old man say from the inside: 'Eh, far does that come frae?'

Then another voice—a man's—replied: 'Eh, it iss rale ponny! It iss the king's own tune mirofer—a rale loyal tune if it wass only on the pipes.'

Then the door slowly opened, and the old man spoke, apparently addressing his dog: 'Pack, Jock, ye deil, pack!'

'An' who may ye be?' he asked, shewing his head and a row of yellow broken teeth, at the door.

'I'm a stranger lost on the moor, and sadly in want of shelter,' I said in my most persuasive tones.

'Wass ye the lad that made yon fine music?'

I held up my flute.

'Wass ye the lad that wass at the door just noo?'

I had to admit the fact, and half ashamed, expected to see the door slam in my face.

'What for then did ye mak' sic a noise if ye cam' wi' an honest purpose? Are ye true? Ye'll no pe in the English service—one o' General Blakeney's crew—when ye can pe playing loyal tunes on your pipe like that?'

I assured him I was not in King George's service, and that my flute had many loyal Jacobite tunes in it that would gladden his old heart, if he would only let me creep near his fire.

Very reluctantly and suspiciously he allowed me to pass him, holding the nape of his collie's neck tightly as I passed. The brute's temper seemed of the same metal as his master's.

The kitchen was very dark. There was only one chair, an old-fashioned high-backed arm-chair, in which the old man sat when he had closed and barred the door carefully. On the opposite side of the hearth-stone—on which several peats smouldered, throwing out a comfortable heat and dim light among the room's shadows—was a round flat boulder, towards which he beckoned me. I was glad to seat myself upon it and absorb some of the warmth after my cold wearisome journey. Steam rose from me in clouds as the heat penetrated my clothes. I was conscious that my host was eyeing me suspiciously as well as silently.

'Can I have anything to eat?' I at length ventured to ask as I felt my blood beginning to circulate freely once more.

'I canna tell that ye can,' he said abruptly.

'What may be in that pot?' I asked, nodding towards a black pot that hung from a chain over the peats.

'Het water,' he replied impassively. Then we were silent again.

He watched me swing off my wallet and place it against the wall; but did not seem ready with any suggestion.

'Hot water?' I said, taking up his answer after a pause. 'The very thing wanted. I shall make some porridge. Can you give me a little oatmeal?'

'If ye'll gif me anither tune—a loyal one mirofer, an' no too loud—ye'll maype get a pickle oatmeal.'

So I pieced my flute together and played to the old savage a satirical song on Johnie Cope's disastrous march, at that time still popular in Edinburgh. His face was radiant as I played, and I noticed as the music affected him that he had only three teeth left in his upper jaw.

'Noo, ye can make your porridge,' he said, rising when I had finished to give me meal from the chest.

'I hef other matters to think o', he said with a sigh as he rose and went 'ben,' leaving me alone to cook my supper.

I cooked, ate, and enjoyed my porridge with a heartiness best known to a starving man, conscious that outside the wind was howling a hurricane, and that my host's collie was watching my movements with no friendly eye from under his master's chair. Once when I made to occupy the arm-chair, as the most comfortable quarter of the room, he flew at me, but only snarled and shewed his teeth; yet with sufficient emphasis to warn me that there was a well-defined limit to the liberties I might take. The growl brought my host's head to the door of the den, and he too, I imagined, looked black at me. But with a large steaming basin on my knee and a horn-spoon I had found in a drawer, I nevertheless enjoyed my supper. My host came once or twice into the kitchen and moved to and fro uneasily, and when I attempted to talk to him, snarled at me in a way that shewed he would much have preferred being without my company. I became uneasy under his gaze. As I sat silent in the dark hovel, listening to the wind outside, and watched my host pacing to and fro, or saw him throw himself uneasily in the arm-chair and bury his face in his hand, occasionally glaring out at me, I began to discuss with myself whether it was wise to remain in such a madman's company for the night. Then my imaginings shaped themselves into the fancy that he was gazing not only fiercely at me, but longingly at my wallet, in which I well knew there was little enough to tempt any man. When again he left me, I thought, as I had fluted to please him, I would flute to please myself for a while, and so proceeded to play:

Oh, Alastir Macalastir, your chanter sets us a' asteer.

Gae to your pipes, an' blaw wi' birr;

We'll dance the Highland fling—

when his door burst open, and he ejaculated: 'Stop that noise there,' in a tone that set me trembling for what consequences might follow.

Obedying the peremptory summons to silence, I gradually dozed off into an uncomfortable sleep. Once or twice I woke to find the old man in his chair looking, I imagined, haggard and distressed, gazing intently at me through the

darkness. My dread of him became fainter as the night advanced and my eyes grew more heavy. Yet I wondered why he did not go to bed instead of moving aimlessly to and fro. Then I fell fast asleep.

It must have been about daybreak that I was suddenly awakened by an exclamation issuing from the next room. I started to my feet, hardly remembering where I was, and imagining that I must have dreamt. Then the door of the room opened suddenly, and the old man tottered rather than walked into the kitchen. He sat down in his chair, evidently unconscious of my presence, put his face in his hands, and burst into a flood of tears, moaning to himself: 'Oh! She is dead—she is dead!'

'Who is dead?' I asked, touching his arm.

'Poor Maggie—ah! poor poor Maggie. And Tonal—what will poor Tonal do now?'

'Is there any one in the house besides you and me? Tell me. I may be able to help you. Who is ill? Who is dead?'

He was very haggard, very absent-minded and helpless. Then he roused himself. 'If ye could go for a doctor now, if ye could only go for a doctor! But that is ten miles in the snow over the moor an' the hill.'

'I am a doctor,' I said, anticipating my honours in the hope of being of use to him.

'Then in there—in go in!' he cried, rising hurriedly. 'Why did ye not say so before?' Then suddenly stopping in front of me he said, glaring in my eyes: 'But swear, are ye true? Swear ye'll be true. I think ye're true. But if not—well,' he drew an ugly-looking dirk from a drawer; 'if ye're a traitor against my son, ye'll rue the night ye darkened a Mackintosh's threshold.'

I pushed past him into the inner room, where I found a woman lying in bed, pale as death, but conscious, and evidently about to become a mother. A powerful young fellow, an enlarged copy of the old man I had left in the kitchen, was sitting by her bedside holding her hand. Tears were raining down his cheeks as he sat. He half rose, scowling as I entered; but the cloud passed from his face as I said: 'Don't rise; I am a doctor come to help you.'

And help them I *did*. For in an hour's time, amidst storm of wind and snow, as the gray dawn began to peep in at the window I carried in a blanket to the old man, seated by the kitchen fire, a new-born Highlander, his grandson, and brought him the news also that all was going well with Maggie. Never shall I forget the grip the old man gave my hand! And his son 'Tonal' too came into the kitchen relieved.

'To think,' said the old man, who looked on me as if I had plucked his child from the grave—'To think, Tonal, I was going to shoot the shentleman cass he wanted to come in an' help us last night whatefer! But I thoct he wass one o' these blackguard English gentry—maype one o' Blakeney's men, like came here a week ago to hunt ye, Tonal, my ponny lad, wha headed the charge mirofer—an' prood am I to pe his father for that same deed of the Mackintoshes at Culloden. Ay, to think the doctor wass in the hoos, an' Tonal's wife at teath's toor. Ye know noo sir, why I wass so unpolite to ye when ye

knock't at the door an' I wouldna let ye in; an' ye'll no doot excuse it sir.'

'Unpolite' I thought was a mild word for the old gentleman's reception of me in the earlier part of the evening. But a flagon of claret, and oat-cakes and butter were now on the table, and the baby in his father's arms.

'I'm going to do ye great honour—the most I can do to mortal man,' said the old man, addressing me, as he slowly and carefully unrolled from white cloth a horn cup, and gravely filled it with claret. 'That iss the cup the young king—God pless him an' his royal father mirofer!—drank out of when he honoured me in this humble cottage by condescending to enter it; an' ye are the first to drink out of the cup since it touched his Highness's lips. Here iss a toast mirofer to the absent an' beloved Prince Charlie an' his royal father, an' may they in God's goot time soon hef their own again!'

Father and son drank the toast on bended knees with the solemnity and ardour of prayer.

'I too have a toast to propose,' I said, a happy thought striking me; 'but we must drink it with Mrs Mackintosh.' We adjourned to the inner room. 'I drink,' said I, placing my hand on the baby's head, 'to the health and future prosperity of Charles Stuart Mackintosh, and may there be many of them!' The toast was rapturously received and applauded.

I had to remain some days in the Highland bothy until the snow melted from the moor; and a more hearty time I never enjoyed, after fairly succeeding in unlocking the gateway of my surly old host's heart. 'Tonal' shewed me where the Prince had only a few months before hidden in the glen—a hiding-place which the old father had been offered and refused the reward of forty thousand pounds to reveal—a spot to which 'Tonal' too had to retire when any suspicious-looking stranger appeared; the stalwart Highlander being a marked man for the part he had taken in the cause of the Young Chevalier.

When at last, in the beginning of the following week, I bound my wallet on my shoulder and moved homeward towards Craig-end, it was with Highland blessings from faithful and steadfast hearts showered plentifully on my head.

#### INGENUITY REWARDED.

ONE likes to hear of instances of ingenuity in which by a simple contrivance great loss of property is averted. We have lately heard of two such instances, so amusing in their way as to be worth mentioning to our readers. The first refers to a device for checking the destructive ravages of locusts. The island of Cyprus, lately acquired by the British government, appears to suffer greatly from these animals, which, after hovering like clouds in the air, settle down with destructive energy, and the finest crops are speedily laid waste. In a work lately issued descriptive of Cyprus, occurs the following account of the manner in which M. Mattei, a landed proprietor residing at Larnaca, contrived to effectually baffle the hosts of locusts.

'He observed that locusts are not able to creep up a smooth surface, nor to keep themselves suspended in the air for any considerable distance, and upon these two facts he based his plan for

exterminating them. He excavated ditches at right angles to the direction of their flight, behind which he placed low screens of oil-cloth, linen, or wood. The locusts, unable to creep up these screens, fell back into the ditch, where they were immediately collected in sacks or baskets, to be buried or covered over with earth. Those amongst them who managed to fly over the first screen were intercepted by a second or a third. These screens, having proved a perfect success at Larnaca, were subsequently introduced into other parts of the island, and an end was then put to the fearful ravages of these animals.' The simplicity of this device will perhaps be appreciated in those western states of America which occasionally suffer from the plague of locusts.

The other instance of ingenuity consists in a plan for saving vine-plants from the ravages of the phylloxera, an insect whose visitations are the terror of vine-growers in the south of France. The proprietor of a vineyard at Ivigany in the department of the Rhone bethought himself of introducing strawberry plants between the rows of vines. The strawberry plants selected were of a kind which produce large berries, because these berries either engender or attract an insect that takes a pleasure in seeking out, pursuing, and devouring the phylloxera. It was like setting one pest to destroy another. The plan was amazingly successful. The strawberry insect sought out and killed the vine insect on so sweeping a scale that very soon not a phylloxera was left, and the vines were left in peace to grow their grapes in perfection. This ingenious device has been followed by other vine-growers with equal success, and we are told that their vines have been perfectly healthy since the strawberry plants have been introduced in their midst.—A vine-grower in Madeira has announced that he averts any damage from the phylloxera by the simple means of cleaning the roots of the vines as far as it is safe to uncover them, and then applying a mixture of Canada balsam and turpentine.

### THE MONTH:

#### SCIENCE AND ARTS.

THE annual Reports of the Registrar-general require so much time for working out the totals and systematic arrangement of the large mass of information therein contained, that they are usually not published until two years after date. Hence it is that the Report for 1876 (the 39th of the series) has but recently appeared. In addition to the indispensable particulars of births, deaths, and marriages, this volume discusses two important questions: one is that of over-population, which is at times obtruded on public attention in a disagreeable way; and it is satisfactory to learn from the learned and able chief of the General Register Office, that over-population is not to be dreaded in a country so perseveringly industrious as England. Looked at from the national point of view, it is safe to say—the more people the better; at the same time it is admitted that individual families may find it hard to live; nevertheless, as all things have their value, the several members of the population must be included. According to the Report, the mean net value of each person,

estimated from the standard of the agricultural labourer, is one hundred and fifty pounds. Consequently, in the thirty-nine years that the office has existed twelve hundred millions sterling have been added to the wealth of the nation by mere increase of population.

The other question referred to above is, the use and abuse of intoxicating drinks. That drunkenness prevails to a large extent, cannot be denied; but if the whole population are classed as drunkards and not drunkards, the preponderance in favour of sobriety is found to be enormous. And the Registrar, reversing the commonly received opinion, states that a tendency towards crime or towards insanity is the cause of drunkenness. But it must not be supposed that the Registrar excuses drinking: he is an earnest advocate of temperance, and shews by his statistical tables that the death-rate among licensed victuallers is much greater than among clergymen, and that the 'mortality among grocers, as compared with that of other classes, has undergone a decided increase since the sale of wines and spirits has become a recognised portion of their formerly salubrious trade.' Social science will perhaps take cognisance of these facts.

The Registrar-general for Ireland in his Report for the quarter ending June last tells us that the birth-rate for the quarter was 27·4 in every thousand of the estimated population, and the mortality 20·1 per thousand. In England, the birth-rate for the same period was 36·9, and the mortality 20·8 per thousand. Owing to unfavourable weather, the quarter was unhealthy in Ireland: the rainfall was nearly twelve inches; being seven inches in excess of the corresponding quarter in the five previous years. The estimated population of Ireland at the end of June was five million three hundred and fifty-one thousand and sixty.

The Iron and Steel Institute, as if bent on a holiday, crossed the Channel and held their annual meeting in Paris. Steel appears to have been the principal topic of discussion, for there were many improvements in the manufacturing processes to describe, and many statements to be made on the operations in which it may be advantageously substituted for iron. The improvements hitherto made have tended to lessen the price of steel, and if these go on, steel will be used instead of iron for ship-building; and ships will then be stronger and lighter than at present. Sir Joseph Whitworth's process for compressing fluid steel enables manufacturers to produce the highest degree of strength and the utmost possible lightness. Then, as if to console the manufacturers of iron, mention was made of Professor Barff's method (already described in these columns) of protecting iron by a coating of magnetic oxide, so that it shall never rust. To have iron and steel that will never decay, will open a new era for machinery and manufactures and for applied science.

Dr Paquelin, a Frenchman who some time ago invented a cauterising iron for use in surgery, which could be maintained at any required temperature, has now produced a soldering iron of similar character. Taking advantage of the property possessed by platinum when at a red-heat of condensing gases, and thereby maintaining in a state of incandescence a metallic mass suitably arranged, he introduces a mixture of petroleum vapour and air into the interior of the instrument, concentrates the mixture upon a small thimble



of platinum, which communicates its heat to the surrounding iron, and maintains it at any required temperature so long as the current of air, produced by mechanical means, is continued. The advantage of a cauterising iron that does not require removal from the wound to be reheated is obvious; and a soldering iron of uniform temperature would be appreciated by artificers everywhere.

In a communication to the Academy of Sciences, Berlin, Mr W. Siemens, after discussing various improvements of the telephone, remarks that in a short time 'telephones will assuredly be constructed which will convey both speech and musical tones beyond comparison more loudly, more distinctly, and with greater purity to moderate distances than has been possible hitherto by the Bell telephone. The instrument will then render service to intercourse in cities and between neighbouring towns which will far surpass what the telegraph can perform for short distances. The telephone is an electrical speaking-tube which, just like an ordinary speaking-tube, can be managed by every one, and can be a perfect substitute for personal conversation; but as at very short distances it will never supplant the speaking-tube, just as little will it be able to take the place of the telegraph for greater distances.' Nevertheless we may believe that it will rank among the important elements of modern civilisation.

Mr Millar of the Institute of Engineers and Ship-builders in Scotland, has ascertained that sounds such as speaking, singing, whistling can be transmitted through fifty yards of ordinary copper-wire and distinctly heard. The wire may be stretched from one end of a house to the other and pass under doors on the way without weakening the sound. A disk of parchment, metal or wood, surrounded by a rim is attached to each end, to serve as mouth and ear piece, and no other preparation is necessary; and it has been proved that if two copper-wires are attached one hundred and fifty yards apart to a telegraph wire, the words spoken at one end will still be heard at the other. Simple as these appliances are, they may perhaps be turned to account in studying the phenomena of acoustics.

Astronomers in the United States have already published Reports on the eclipse of July last, with the general conclusions derived from their observations, first among which, on the nature of the corona is, that it shines by light reflected from the sun by a cloud of meteors surrounding the sun, and that on former occasions it has been infiltrated with materials thrown up from the chromosphere. And further, a decided sympathy and connection between the condition of the sun's visible surface, as indicated by the number and character of the sun-spots, and the constitution of the corona has been demonstrated. 'At the present time,' remarks Professor Young, 'the sun-spots are at their minimum; whole months have passed without the appearance of a single one. The chromosphere or coloured envelope which immediately surrounds the sun, has also been correspondingly quiescent, and the so-called prominences have been few and small. It certainly looks probable,' he continues, 'that while the gaseous elements of the corona are strictly solar, the non-gaseous matter—the coronal dust or haze—is of extraneous and very likely meteoric origin.'

An impression prevails among some of the observers that there has been a gradual diminution in the brightness of the corona as observed in eclipses since 1869; but there is a general agreement that 'the unknown cause, whatever it may be, which produces the periodical sun-spots at intervals of about eleven years, also affects the coronal atmosphere of the sun. And this, of course, adds a certain measure of probability to the idea that these solar periods may produce some effect upon the earth, such as may be felt in our meteorological conditions.'

Another impression is that during the obscurity produced by the eclipse, the long-sought-for planet Vulcan was discovered between Mercury and the Sun. Should this be verified when the results of all the observations come to be discussed, it will be a fact of the highest importance in physical astronomy, and will confirm the views of the distinguished astronomer Le Verrier.

An account of experiments communicated to the Academy of Sciences, Paris, contains particulars interesting to students of the physiology of plants, and to agriculturists. Mr Grandeaun desiring to ascertain whether atmospheric electricity had any influence on the growth and nutrition of plants, instituted a series of experiments on plants of the same kind under different circumstances. One set (tobacco, maize, and wheat) he placed in a case open to the air; the other set exposed to air, light, and moisture, but shut off from the electricity of the atmosphere. The result was unequivocal and noteworthy, being from fifty to sixty per cent. in favour of the plants left free to the air. It may therefore be taken as settled that the electricity of the atmosphere plays a very important part in the assimilation and nutrition of plants. Mr Grandeaun's conclusions are accepted by the eminent chemist Berthelot, who, at a subsequent meeting, pointed out to the Academy the significance of the fact that the free plants contained a double quantity of azotised matter.

As connected with this subject we mention a lecture 'On the Chemical Aspect of Vegetable Physiology,' delivered to the Chemical Society by Mr S. H. Vines, in which after stating that organic chemistry owes its existence to the numerous investigations of plants made by chemists, the author describes the function of the chlorophyll, and the modifications which this substance undergoes during growth of the plant, and under the influence of heat and light. It promotes assimilation; and one of the products of assimilation is a carbohydrate: 'the raw material of the plant,' as Mr Vines calls it; and he tells us that 'one portion becomes converted into cellulose to form the walls of the cells in growing organs, and this cellulose becomes subsequently converted into lignin or cork, or gum or mucilage. A second portion is devoted to the nutrition of the existing protoplasm, and to a formation of new proteid material by the combination of carbohydrates with derivatives of the nitrogenous compounds (ammonia and nitrates) absorbed by the roots.'

As supplementary to the paragraph in last *Month* on a printing-machine for the use of the blind, we mention that preliminaries have been made for the holding of a 'Blind Congress' next year in Berlin. The object is to form a plan by which blind persons of different countries may understand one another in their ordinary com-

munications. This can be done only by a uniform system of teaching, and then, after practice, it is thought that blind Englishmen will be able to understand blind Germans or Frenchmen, and *vice versa*, and thus widen their knowledge and their sympathies.

The Congress of Orientalists, the ablest scholars in their several branches from all parts of the world, have met at Florence, and done much towards widening our knowledge of the languages and literature of the East.

A Report 'On the Languages of the Indo-Chinese Peninsula and the Indian Archipelago,' published by the Philological Society, presents a large collection of interesting facts, skillfully grouped, and concludes with a suggestive paragraph. 'The range of the Himalayas,' says Mr Cust, the author, 'is a great linguistic water-shed of a most unique and interesting kind. A profound study of the non-Aryan languages of India, the Indo-Chinese peninsula, and the Indian Archipelago, may some day furnish materials for a wider induction of grammatical principles than was possible to the limited knowledge available to Bopp, Humboldt, and Max Müller. We seem to catch the first effects of the human race *in situ*, not in a state of hopeless savagery, as in Australia and America, but in a graduated scale of improved and improving languages. In the rear of the Himalaya is the great monosyllabic Chinese; the flank is turned by every possible combination of the agglutinative method; in their front is the great inflecting word-system of the elder family of the Aryans, destined in the vernacular to incorporate Semitic vocables. Thus, from these languages, may possibly, at some future period, be gathered the connecting links between the great orders of human speech.'

Another expedition for the exploration of Africa has been organised by the Royal Geographical Society. The party, under the command of Mr Keith Johnston, will commence operations on the coast opposite Zanzibar with geological, botanical, and other scientific observations, and afterwards make their way to the region of the great lakes in the interior. German and French explorers, some from the north, others from the west, are also engaged in the adventurous work of making Africa known to the rest of the world. Meanwhile Captain Burton has published his book, and readers desirous of knowing what is the present condition of the ancient land of Midian, will find ample satisfaction in his interesting narrative. America too, is not neglected, for the project of a canal across the Isthmus of Panama continually attracts surveying parties; vessels from the United States are exploring the great river Amazons and its affluents, and steamers are to be started on Lake Titicaca. In Australia an attempt is making to turn to profit the vast grasslands in the north bordering on the Gulf of Carpentaria, and enterprising colonists are leading large flocks of sheep across the intervening desert, in the hope that enough will survive to give success to the experiment.

Last year the desert of Atacama was explored by a scientific Commission appointed by the government of Chile, and discovery was made in that wild and barren region of large deposits of nitrate of soda, of borate of soda, of guano, and of silver and copper. The approach to the desert

from the coast, owing to the exceedingly steep and mountainous conformation of the country, is difficult and toilsome; but two ports, Taltal and Blanco Encalada, have been established, and are to be connected by roads with the interior. At these ports the valuable minerals will be shipped. The supply appears to be enormous, for in one section of the desert, about one thousand five hundred acres, there are six million cubic metres of nitrate; and, including other tracts, it is estimated that more than a century will be required to work out all the deposits. A printed Report recently published in London may be consulted for further particulars.

With regard to the Electric light, we hear that Mr Edison of phonograph celebrity, has devised a contrivance for subdividing it indefinitely and thus supplying it to gas-fixtures. This, if carried out, will revolutionise gas-illumination. The apparatus hitherto in use by electricians can only produce a few lights, and has been considered a triumph of inventive skill; Edison guarantees that by his new process the number of lights that can be produced is endless. The lower part of New York is to be lighted as a preliminary experiment, and the cost we are told will be a mere fraction of that of gas. On this all-important subject we may have something further to say by-and-by.

#### THE BROKEN TOY.

He led us to a summer-house,  
In which we often played,  
And on the floor in shining heaps  
Were toys and posies laid.

Said he: 'My children, choose of these  
The thing which you like best.'  
No need to tell how willingly  
We followed his behest.

I seized a large and gilded toy  
Whose splendour caught my eye.  
She took a wreath of roses,  
And raised it with a sigh.

I tossed my plaything in the air,  
And broke it in its fall.  
She smoothed her petals tenderly,  
And kissed them one and all.

In childish petulance, I threw  
The broken toy away.  
Her flowers she tended carefully,  
And watered day by day.

'Twas ever so. I sought the glare  
And noisy din of life.  
She studied Nature patiently,  
And rested from the strife.

And in the end there fell to us  
No usual lot of joy:  
She won the garland of renown;  
And I, Life's broken toy.

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